



## Plate Tectonics Hasn't Changed, We Have

Bill Menke, April 17, 2010

With killer earthquakes this year in Haiti, Chile and China, and with an Icelandic volcano<sup>1</sup> shutting down European air traffic, people may be wondering whether the earth has suddenly become a more tectonically dangerous place. Plate Tectonics hasn't changed, we have. And in several important ways:

First and foremost, we human beings are more numerous and much more urban than, say, during my childhood in the 1960's. And many of our burgeoning cities are located in rather dangerous places. Haiti's population, for instance, has more than doubled since 1960, and the population of Port-au-Prince, which is right on a tectonic plate boundary, has quadrupled. Many of the newcomers are desperately poor and living in substandard housing

Second, we are more globally-oriented civilization. We travel more. The 1963 Surtsey eruption in Iceland wasn't any smaller than the current one, but the air routes were certainly way less crowded. We know and care more about the rest of the world, too. Information flows faster. The March 7, 1966 Longyao earthquake, which killed more than a thousand people in northern China, did indeed make the NY Times<sup>2</sup>, so internationally-minded New Yorkers presumably knew about the suffering there. But the short, 348-word story was published five days afterward, when information about it was "disclosed" by the Chinese. This is in contrast to the recent - and equally deadly - Qingha earthquake, which was published the day after, which commanded half a page, and which included a dramatic photograph of rescuers.

Third, we really have learned more about how to identify – and mitigate – risks associated with natural hazards. The danger of flying through volcanic ash was relatively unknown in 1991, when KLM Flight 260 lost engine power and plunged 20,000 feet after flying through a cloud from an Alaskan volcano. Fortunately the crew was able to restart the engines before crashing. But it's not a scenario anyone wants to repeat. Learning from experience is a good thing!

Finally, we tend to expect the best behavior from mother nature. Our hoping that tomorrow will be a sunny day is fine. Our living a lifestyle that *self-destructs* on the first rain isn't.

<sup>1</sup>Say *Eyjafjallajökull* three times, quickly!

<sup>2</sup>Quake Havoc Widespread in North China Region, by Reuters, NY Times, March 12, page 4, 1966.

<sup>3</sup>Quake Hits Remote Area of Western China, Killing 589, NY Times, March April 15, page A12, 2010.

Photo: Satellite Photo showing ash cloud leaving Iceland. Photo Credit, NASA.